

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2. (canceled)

3. (currently amended) The method of claim 21 wherein the ferroelectric material is a PZT bearing compound.

Claims 4-5. (canceled)

6. (currently amended) The method of claim 21 wherein the ferroelectric material has a thickness of less than about 1,000 Angstroms.

7. (canceled)

8. (currently amended) The method of claim 421 wherein the ferroelectric material has a thickness of about 100 Angstroms and greater.

9. (currently amended) The method of claim 21 wherein the ferroelectric material is PZT.

Claims 10-13. (canceled)

14. (currently amended) The method of claim 421 wherein the ferroelectric material is highly oriented.

15. (canceled)

16. (currently amended) The method of claim 421 wherein the ferroelectric material is substantially free from an amorphous structure.

Claims 17-18. (canceled)

19. (currently amended) The method of claim 421 wherein the oxide layer is provided by a dry oxidation process comprising an oxygen bearing compound.

20. (currently amended) The method of claim 421 wherein the oxide layer passivates the surface of the substrate to protect the channel region.

21. (Currently Amended) A method for fabricating a non-volatile memory device, the method comprising:

providing a semiconductor substrate;
forming a gate oxide layer on the substrate, the oxide layer having a non-crystalline structure;
forming a MgO layer on the oxide layer after forming the oxide layer on the substrate, the MgO layer having a crystal structure;
thermally annealing the MgO layer to enhance an alignment of crystallites of the MgO layer;
forming a ferroelectric material overlying the substrate and the MgO layer;
forming a gate layer overlying the ferroelectric material, the gate layer overlying a channel region; and
forming first and second doped regions adjacent to first and second ends of the channel region, wherein the gate oxide layer is a first buffer layer and the MgO layer is a second buffer layer,
wherein the MgO layer formed on the oxide layer is provided with a highly-oriented structure prior to the annealing step.

wherein the MgO layer has a polycrystalline structure prior to the annealing step.

22. (canceled)
23. (Currently Amended) The method of claim 21, wherein the oxide layer has an amorphous structure ~~and the MgO layer has a crystal structure.~~
24. (Original) The method of claim 23, wherein the second buffer layer has a thickness of no more than 10 nm.

25. (canceled)

26. (Original) The method of claim 21 wherein the second buffer layer is thermally annealed at a temperature of 800-1000 degrees Celsius.

Claims 27-31. (canceled)

32. (currently amended) A method for fabricating a non-volatile memory device, the method comprising:

providing a semiconductor substrate;

forming an amorphous gate dielectric layer on the substrate;
forming a MgO layer on the amorphous dielectric layer after forming the dielectric layer on the substrate, the MgO layer having a highly-oriented structure; and
forming a ferroelectric layer overlying the MgO layer,
wherein the dielectric layer, MgO layer and ferroelectric layer are patterned to form a transistor,

wherein the MgO layer has a polycrystalline structure.

33. (canceled)
34. (canceled)